

SUPPLEMENTAL MATERIAL

Prenatal Concentrations of PCBs, DDE, DDT and Overweight in Children: A Prospective Birth Cohort Study

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Supplemental Material, Table 1. Comparison of characteristics in the subsample of excluded subjects (N=138) and in the analysis sample (N=344)

Characteristics	Excluded Subjects (N=138)		Included Subjects (N=344)		p-value ^b
	Value ^a	Missings N (%)	Value ^a	Missings N (%)	
Child characteristics					
Sex – Female	56 (40.6)	0 (0%)	178 (51.7)	0 (0%)	0.03
Age – years	6.7 ± 0.2	0 (0%)	6.7 ± 0.2	0 (0%)	0.81
Gestational age – weeks	38.6 ± 2.6 ^c	0 (0%)	39.6 ± 1.2	0 (0%)	< 0.01
Birth weight – grams	3052 ± 611 ^c	0 (0%)	3240 ± 438	0 (0%)	< 0.01
Breastfeeding – weeks					
<2	34 (24.6)		64 (18.6)		
2-25	72 (52.2)		170 (49.4)		
>25	32 (23.2)	0 (0%)	110 (32.0)	0 (0%)	0.11
Maternal characteristics					
Age at pregnancy - years					
<30	67 (56.5)		181 (52.6)		
30-35	42 (30.4)		119 (34.6)		
>35 years	18 (13.0)	0 (0%)	44 (12.8)	0 (0%)	0.67
Parity - nulliparous	71 (51.4)	0 (0%)	166 (48.3)	0 (0%)	0.53
BMI before pregnancy > 25 kg/m ²	28 (20.3)	7 (5%)	68 (20.0)	5 (1%)	0.82
Smoking any time in pregnancy – yes	58 (42.0)	0 (0%)	124 (36.1)	0 (0%)	0.22
Alcohol consumption in pregnancy - yes	14 (10.1)	0 (0%)	30 (8.7)	0 (0%)	0.63
Diabetes – yes	5 (3.6)	0 (0%)	20 (5.8)	0 (0%)	0.33
Education - more than secondary	55 (40.7)	3 (2%)	139 (41.9)	13 (4%)	0.80
Social class					
Non-manuals	53 (38.4)		156 (45.3)		
Manuals	48 (34.8)		117 (34.0)		
Unclassified	37 (26.8)	0 (0%)	71 (20.6)	0 (0%)	0.25
Paternal characteristics					
Education - more than secondary	38 (28.4)	4 (3%)	118 (35.0)	7 (2%)	0.17
Social class					
Non-manuals	49 (35.5)		118 (34.3)		
Manuals	83 (60.1)		219 (63.7)		
Unclassified	6 (4.3)	0 (0%)	7 (2.1)	0 (0%)	0.34

^a Values are means ± SD for continuous and N (%) for categorical variables.

^b Chi-square for categorical variables; t-test (for normally distributed) or Wilcoxon-Mann-Whitney (for non-normal distribution) for continuous variables.

^c Excluded subjects include preterm births. Excluded subjects after omitting preterm births (N=122); birthweight mean ± SD = 3189 ± 490, p-value=0.23 and gestational age mean ± SD=39.5 ± 1.32, p-value=0.71.

Supplemental Material, Table 2. Adjusted estimated effects (RR, 95% CI) of prenatal PCB, DDE and DDT concentrations on overweight at 6.5 years in the subgroup of children with postnatal OC exposures measured in child's serum at age 4 years (N=216)^a.

Prenatal OC concentrations (ng/mL)	N	Multivariable-adjusted model 1^b	Multivariable-adjusted model 1+ postnatal OC exposure^{b,c,d}
PCBs			
< 0.6	57	Ref.	Ref.
0.6-0.9	76	1.17 (0.60, 2.27)	1.17 (0.61, 2.27)
> 0.9	83	2.00 (1.12, 3.57)	2.16 (1.22, 3.84)
DDE			
< 0.7	65	Ref.	Ref.
0.7-1.5	79	1.70 (0.93, 3.10)	1.71 (0.93, 3.12)
> 1.5	72	1.60 (0.89, 2.92)	1.64 (0.88, 3.06)
DDT			
< 0.06	84	Ref.	Ref.
0.06-0.18	73	0.98 (0.55, 1.74)	0.99 (0.55, 1.77)
> 0.18	59	1.06 (0.61, 1.86)	1.06 (0.59, 1.90)

^a Non-selective subgroup of the analysis population for child characteristics such as sex, age, birthweight, breastfeeding, BMI z-scores, or maternal characteristics such as age, parity, pre-pregnancy BMI, smoking in pregnancy, education and social class.

^b Adjusted for birthweight, previous parity, maternal pre-pregnancy BMI, maternal education and social class at pregnancy, maternal smoking in pregnancy, maternal age at delivery and breastfeeding.

^c Additionally adjusted for postnatal exposure of the OC tested (all OCs in tertiles).

^d Spearman correlations between pre- and post-natal exposures; Rho (p-value)= 0.28 (<0.01) for PCBs, 0.46 (<0.01) for DDE and 0.18 (<0.01) for DDT.